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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III
4530 Bath Pike
Bethlehem, PA 18017

Richard M. Fetzer, OSC
Removal Branch (3HW31)
(215) 353-3909

To: Mr. Charles J. Walters, Public Health Advisor
ATSDR, Region III

From: Mr. Richard Fetzer, On-scene Coordinator (3HS31)
U.S. Environmental Protection Agency, Region III

Subject: Hamburg - Port Clinton Avenue Site
Hamburg Borough, Berks County, Pennsylvania

Date: March 12, 2002

I. Background and General Information

A. Site Name:

Hamburg – Port Clinton Avenue

B. Site Location:

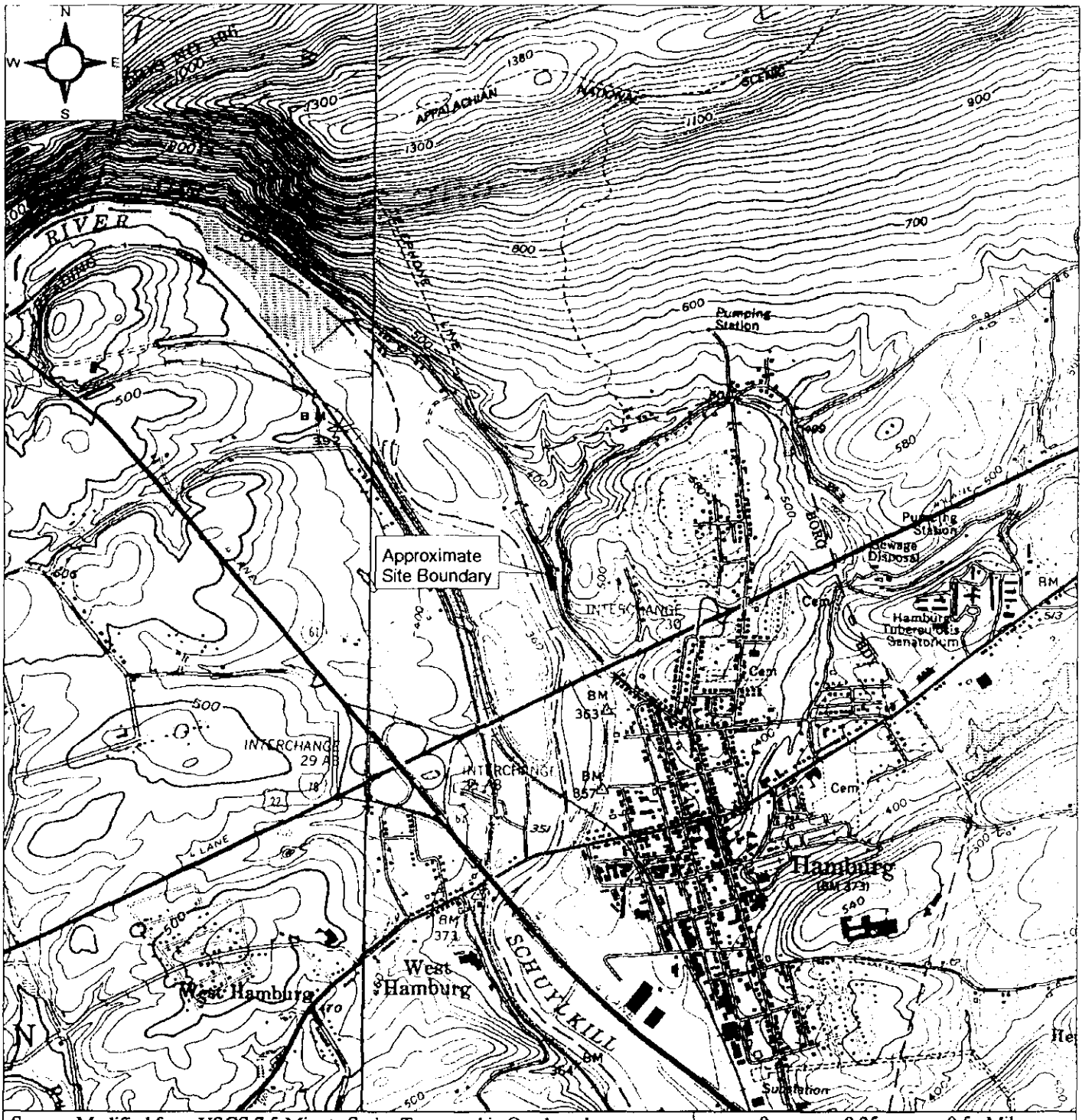
The Hamburg – Port Clinton Avenue site (site) is located within the Borough of Hamburg, Berks County, Pennsylvania. The site coordinates are 40.56083° N latitude and 75.98805 ° W longitude. The site is located east of the Schuylkill Canal and Towpath and west of Port Clinton Avenue. The site extends approximately 300 feet north from the Port Clinton Avenue and Mountain Avenue intersection and approximately 900 feet south from the same intersection. Figure 1, Site Location Map, shows the site location within the Borough of Hamburg.

C. Site Type:

The site is part of a borough-owned park where crushed lead acid battery casings have been improperly dumped. Three residential properties and a church are located within 400 feet of the northern end of the site.

D. Site Background:

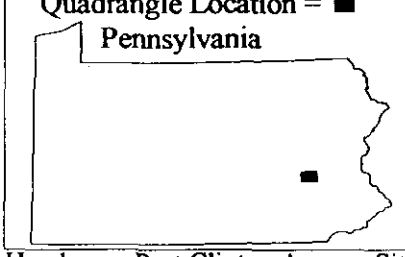
The site is over 1.5 forested acres. The site is bordered to the north by two private residences, to the east by Port Clinton Avenue and one residence, to the south by the I-78 overpass and Hamburg Playground (Playground), and to the west by the Schuylkill River. Access to the site is uncontrolled.



Source: Modified from USGS 7.5-Minute Series Topographic Quadrangle,
Auburn, Pennsylvania, 1945, Photorevised 1979
Hamburg, Pennsylvania, 1956, Photorevised 1969, 1977, minor revision 1994

0 0.25 0.5 Miles

Scale = 1:24000



Hamburg - Port Clinton Avenue Site
Hamburg, Berks County, Pennsylvania

Figure 1
Site Location Map

TDD No. 03-02-02-008
EPA Contract No. 68-S3-00-02

Tetra Tech EM Inc.

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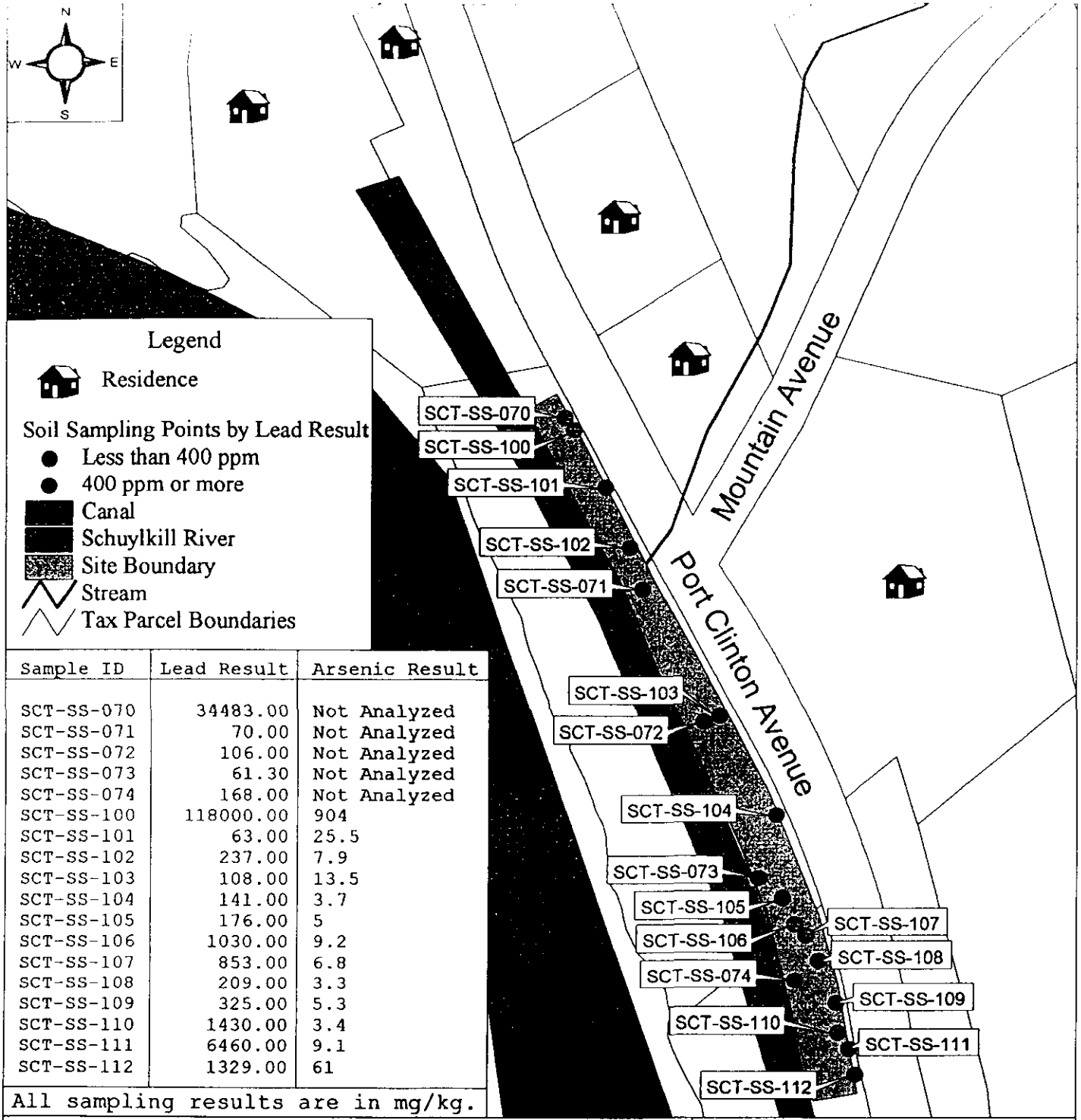
In 1994, the U.S. Environmental Protection Agency (EPA) conducted a Removal Action (RA) at the Playground (Hamburg Lead Site), located to the south of the I-78 overpass. During this RA, the portion of the Schuylkill Canal located at the Playground was excavated, covered with clean fill, and capped with asphalt. This area is now used as a parking lot for the municipal park. During this RA, additional areas were covered with riprap along the bank of the Schuylkill River. No work was conducted beyond the limits of the parking lot. In March 2000, the EPA Site Assessment and Technical Assistance (SATA) contractor was tasked to perform a removal assessment of various areas of concern in the Borough of Hamburg, including the banks of the Schuylkill River adjacent to the municipal park. During this assessment, it was noted that the canal extended north beyond the I-78 overpass. During further reconnaissance of the area, battery casings were observed protruding from the ground and in the canal sediment. On October 6, 2000, the Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assistance and Response Team (START), was tasked to perform a removal assessment of the Schuylkill Canal and Towpath (SCT).

During the week of November 13 through 17, 2000, Tetra Tech mobilized to SCT and initiated removal assessment sampling activities. Tetra Tech collected 9 surface water, 53 sediment, and 109 surface soil samples. Five of these samples were collected in the Port Clinton Avenue Site. The samples were analyzed for either target analyte list (TAL) metals or for total lead. Surface water samples and sediment samples were analyzed by a Contract Laboratory Program (CLP) laboratory for either total TAL metals or total lead. Soil samples were analyzed with x-ray fluorescence (XRF) equipment for lead. Forty-nine split soil samples were sent to a CLP laboratory for XRF results confirmation.

On January 11, 2001, Tetra Tech personnel collected 13 additional surface soil samples in areas believed to contain high lead concentrations (see Figure 2, Lead and Arsenic Results Map). This area is located between the Schuylkill Canal and Port Clinton Avenue. These samples were sent to a Tetra Tech subcontracted laboratory (Chemtech) for total TAL metals analysis. This area became the Hamburg – Port Clinton Avenue Site.

E. Contact Person (as an alternative to On-Scene Coordinator Rich Fetzer):
Robert Helverson
Project Manager, Tetra Tech EM Inc.
Region III Superfund Technical Assistance and Response Team (START)
(610) 364-2119



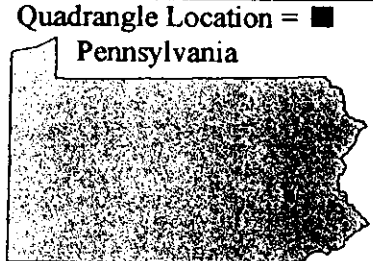
Sample ID	Lead Result	Arsenic Result
SCT-SS-070	34483.00	Not Analyzed
SCT-SS-071	70.00	Not Analyzed
SCT-SS-072	106.00	Not Analyzed
SCT-SS-073	61.30	Not Analyzed
SCT-SS-074	168.00	Not Analyzed
SCT-SS-100	118000.00	904
SCT-SS-101	63.00	25.5
SCT-SS-102	237.00	7.9
SCT-SS-103	108.00	13.5
SCT-SS-104	141.00	3.7
SCT-SS-105	176.00	5
SCT-SS-106	1030.00	9.2
SCT-SS-107	853.00	6.8
SCT-SS-108	209.00	3.3
SCT-SS-109	325.00	5.3
SCT-SS-110	1430.00	3.4
SCT-SS-111	6460.00	9.1
SCT-SS-112	1329.00	61

All sampling results are in mg/kg.

Source: Modified from USGS 7.5-Minute Series Topographic Quadrangle, Hamburg, Pennsylvania, 1956, Photorevised 1969, 1977, minor revision 1994 and from local tax maps

0 100 200 Feet

Quadrangle Location = ■

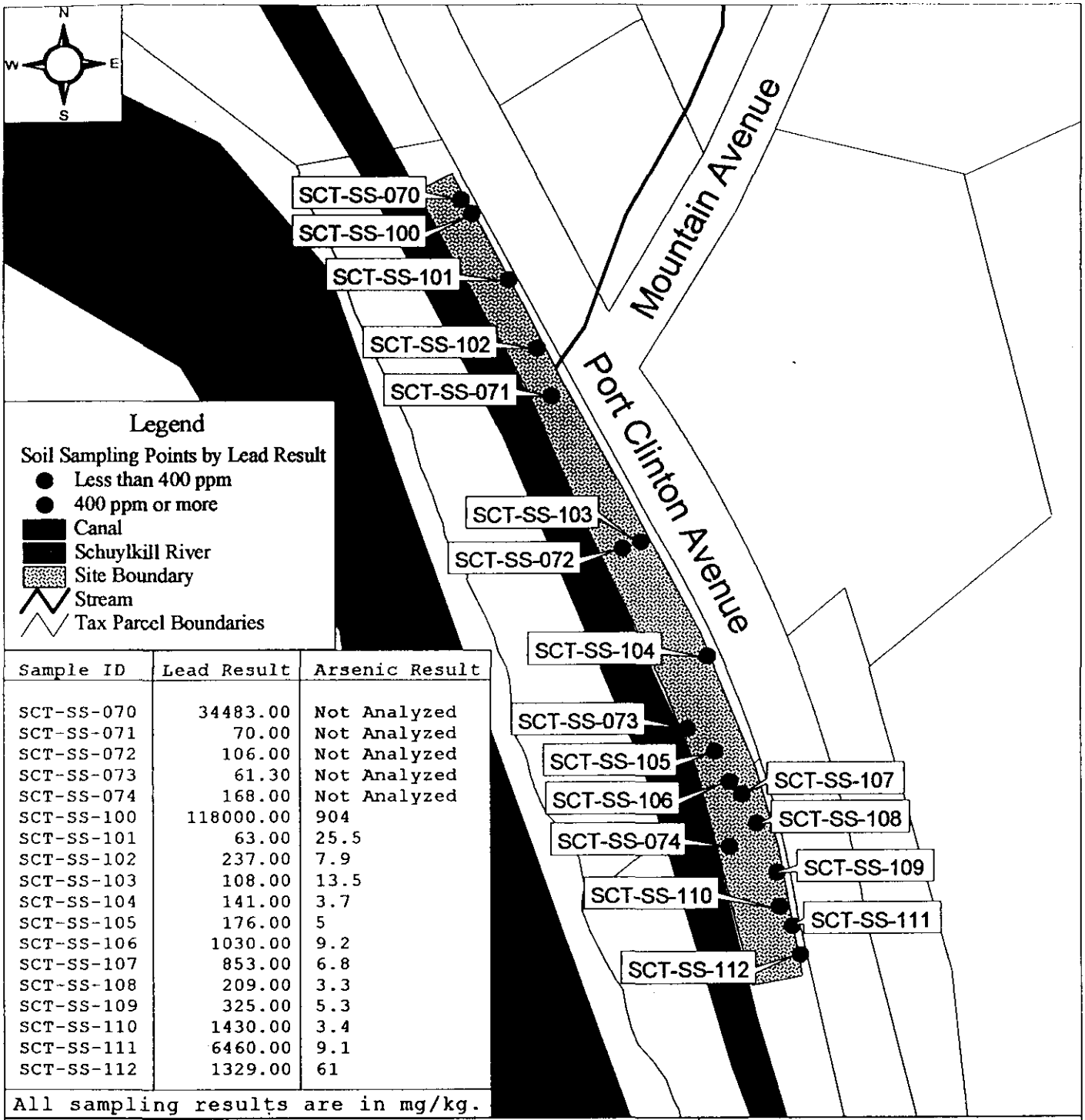


Hamburg - Port Clinton Avenue Site
Hamburg, Berks County, Pennsylvania

Figure 2
Lead and Arsenic Results Map

TDD No. 03-02-02-008
EPA Contract No. 68-S3-00-02

Tetra Tech EM Inc.



Legend

Soil Sampling Points by Lead Result
- Less than 400 ppm
- 400 ppm or more
- Canal
- Schuylkill River
- Site Boundary
- Stream
- Tax Parcel Boundaries

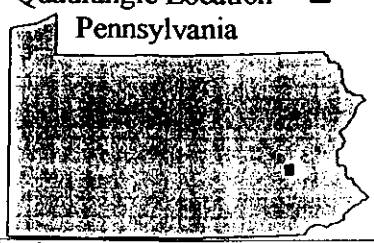
Sample ID	Lead Result	Arsenic Result
SCT-SS-070	34483.00	Not Analyzed
SCT-SS-071	70.00	Not Analyzed
SCT-SS-072	106.00	Not Analyzed
SCT-SS-073	61.30	Not Analyzed
SCT-SS-074	168.00	Not Analyzed
SCT-SS-100	118000.00	904
SCT-SS-101	63.00	25.5
SCT-SS-102	237.00	7.9
SCT-SS-103	108.00	13.5
SCT-SS-104	141.00	3.7
SCT-SS-105	176.00	5
SCT-SS-106	1030.00	9.2
SCT-SS-107	853.00	6.8
SCT-SS-108	209.00	3.3
SCT-SS-109	325.00	5.3
SCT-SS-110	1430.00	3.4
SCT-SS-111	6460.00	9.1
SCT-SS-112	1329.00	61

All sampling results are in mg/kg.

Source: Modified from USGS 7.5-Minute Series Topographic Quadrangle, Hamburg, Pennsylvania, 1956, Photorevised 1969, 1977, minor revision 1994 and from local tax maps

0 100 200 Feet

Quadrangle Location = ■
Pennsylvania



Hamburg - Port Clinton Avenue Site
Hamburg, Berks County, Pennsylvania

Figure 2
Lead and Arsenic Results Map

TDD No. 03-02-02-008
EPA Contract No. 68-S3-00-02

Tetra Tech EM Inc.

F. Concerns and Questions to be Addressed:

- Does a significant threat to public health or welfare exist at these sites?
- If a significant threat exists, what alternatives exist to mitigate the threat?

G. Turnaround Time Required:

Review of, and recommendations for, this site should be given high priority.

II. Substances Present

The following section discusses the quantities of substances identified and the conditions that may affect these substances on site.

A. Known substances present:

The following data review is from the Hamburg removal assessment at the Schuylkill Canal and Towpath and Port Clinton Avenue areas of concern. Tetra Tech conducted the assessment during the week of November 13, 2000 and on January 11, 2001. Table 1, Soil Analysis Summary, shows the sample analysis summary for the site. Tetra Tech used XRF equipment to analyze soil samples. Samples SCT-SS-100 through SCT-SS-111 were sent to Chemtech laboratory for total target analyte list (TAL) metals analysis.

Tetra Tech collected a total of eighteen surface soil (0-12 inch depth) samples on November 15, 2000 and January 11, 2001 at the Port Clinton Avenue Site. Samples SCT-SS-70 and SCT-SS-100 had the highest concentrations of lead in soil at 34,483 and 118,000 parts per million lead (ppm), respectively. Sample SCT-SS-111 showed a lead concentration in soil of 6,460 ppm. Four additional sample locations SCT-SS-106, SCT-SS-107, SCT-SS-110, and SCT-SS-112 have lead concentrations of 1,030 ppm, 853 ppm, 1,430 ppm, and 1,329 ppm, respectively. All the remaining samples collected in this area had lead concentrations in the same range as that of background lead sample concentrations (56 ppm to 230 ppm). Battery casings were observed at sample locations SCT-SS-107, SCT-SS-110 and SCT-SS-111.

In addition to lead, arsenic concentrations ranging from 3.3 ppm to 904 ppm were present in all samples sent to the laboratory for total TAL metals analysis. Sample SCT-SS-100 had the highest arsenic

Table 1
Soil Analysis Summary
Port Clinton Avenue Site
February 8, 2002

Sample ID		SCT-SS-70	*	SCT-SS-71	*	SCT-SS-72	*	SCT-SS-73		SCT-SS-74		SCT-SS-100	
Date Sampled		11/15/00		11/15/00		11/15/00		11/15/00		11/15/00		1/11/01	
Time Sampled		1130		1135		1140		1145		1155		955	
Matrix		Soil		Soil		Soil		Soil		Soil		Soil	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	IDL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	40	NA		NA		NA		NA		NA		15,100	
Antimony	12	NA		NA		NA		NA		NA		5760	
Arsenic	2	NA		NA		NA		NA		NA		904	
Barium	40	NA		NA		NA		NA		NA		1370	
Beryllium	1	NA		NA		NA		NA		NA		1.5	
Cadmium	1	NA		NA		NA		NA		NA		12.1	
Calcium	1,000	NA		NA		NA		NA		NA		43,000	
Chromium	2	NA		NA		NA		NA		NA		54.9	
Cobalt	10	NA		NA		NA		NA		NA		41.9	
Copper	5	NA		NA		NA		NA		NA		618	
Iron	20	NA		NA		NA		NA		NA		97,400	
Lead	0.6	34,483		70		106		61.3		168		118,000	
Magnesium	1,000	NA		NA		NA		NA		NA		8,270	
Manganese	3	NA		NA		NA		NA		NA		854	
Mercury	0.1	NA		NA		NA		NA		NA		0.12	
Nickel	8	NA		NA		NA		NA		NA		220	
Potassium	1,000	NA		NA		NA		NA		NA		2,460	J
Selenium	1	NA		NA		NA		NA		NA		3.9	
Silver	2	NA		NA		NA		NA		NA		3.5	
Sodium	1,000	NA		NA		NA		NA		NA		10700	J
Thallium	2	NA		NA		NA		NA		NA		2	J
Vanadium	10	NA		NA		NA		NA		NA		44.8	
Zinc	4	NA		NA		NA		NA		NA		588	

Notes:

* = Results reported from XRF analysis
[ ] = Analyte present; as value approaches the IDL, the quantitation may not be accurate
B = Not detected substantially above the level reported in laboratory or field blanks
BGRD = Background sample
IDL = Instrument detection limit (laboratory)
J = Analyte present; reported value may not be accurate or precise
K = Analyte present; reporte vdalue may be biased high; actual value expected to be lower
mg/kg = milligrams per kilogram
NA = Not analyzed
ND = Not detected
Q = Qualifier
SS = Soil sample
SB = Streambank soil sample
UJ = Approximate quantitation limit
UL = Not detected, quantitation limit is probably higher

Table 1
Soil Analysis Summary
Port Clinton Avenue Site
February 8, 2002

Sample ID		SCT-SS-101		SCT-SS-102		SCT-SS-103		SCT-SS-104		SCT-SS-105		SCT-SS-106	
Date Sampled		1/11/01		1/11/01		1/11/01		1/11/01		1/11/01		1/11/01	
Time Sampled		1005		1010		1020		1040		1050		1100	
Matrix		Soil		Soil		Soil		Soil		Soil		Soil	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	**IDL**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**
Aluminum	40	7,850		12,100		6,820		5,170		9,800		10,800	
Antimony	12	ND		2	[ ] B	2.4	[ ] B	2.6	[ ] B	ND		3.6	[ ] B
Arsenic	2	25.5		7.9		13.5		3.7		5		9.2	
Barium	40	64.5		86.8		49.1	[ ]	56.6		74.9		866	
Beryllium	1	ND	[ ]	ND	[ ]	0.63	[ ]	0.41	[ ]	0.68	[ ]	0.71	[ ]
Cadmium	1	ND		ND	[ ]	0.23	[ ]	0.72	[ ]	0.75	[ ]	6.3	
Calcium	1,000	349	[ ]	1,610		1,580		23,400		11,700		10,300	
Chromium	2	7.6		16.6		8.3		15.6		14.5		28.6	
Cobalt	10	3.3	[ ]	12.2		4.7	[ ]	5.4	[ ]	9.3	[ ]	11.4	[ ]
Copper	5	58.8		28.3		51.1		40.2		26.6		113	
Iron	20	31,500		25,800		25,500		17,000		21,200		27,700	
Lead	0.6	63		237		108		141		176		1,030	
Magnesium	1,000	1,170	[ ]	3,770		1,350	[ ]	9,390		6,240		6,400	
Manganese	3	71		508		121		619		283		421	
Mercury	0.1	2.3		0.12		1.2		ND		0.35		ND	
Nickel	8	8.6	[ ]	26.1		9	[ ] K	11.1		19.6		32.8	
Potassium	1,000	887	[ ] J	1,020	[ ] J	635	[ ] J	628	[ ] J	1,190	J	964	[ ] J
Selenium	1	12.2		ND	UJ	6.2		1.2	UJ	1	UJ	2.6	
Silver	2	ND		ND		ND		ND		ND		6.2	
Sodium	1,000	ND	UJ	ND	UJ	ND	UJ	696	[ ] J	63.2	UJ	162	[ ] J
Thallium	2	ND	UJ	ND	UJ	ND	UJ	1.3	UJ	1.1	UJ	1.5	UJ
Vanadium	10	14.3		15.9		11.5	[ ]	15		12.6		19	
Zinc	4	35.1		171		50.5		74.8		239		721	

Notes:
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K = Analyte present; reporte vdalue may be biased high; actual value expected to be lower
mg/kg = milligrams per kilogram
ND = Not detected
Q = Qualifier
SS = Soil sample
SB = Streambank soil sample
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UL = Not detected, quantitation limit is probably higher

Table 1
Soil Analysis Summary
Port Clinton Avenue Site
February 8, 2002

Sample ID		SCT-SS-107		SCT-SS-108		SCT-SS-109		SCT-SS-110		SCT-SS-111		SCT-SS-112	*
Date Sampled		1/11/01		1/11/01		1/11/01		1/11/01		1/11/01		1/11/01	
Time Sampled		1105		1112		1120		1123		1130		1135	
Matrix		Soil		Soil		Soil		Soil		Soil		Soil	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analyte	IDL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	40	5,240		3,860		2,160		2,780		8,460		NA	
Antimony	12	10.1	[]	2.8	[] B	3.5	[] B	4.6	[] B	ND		NA	
Arsenic	2	6.8		3.3		5.3		3.4		9.1		61	*
Barium	40	55.5		53		29.5	[]	24.2	[]	82.4		NA	
Beryllium	1	0.62	[]	0.32	[]	0.14	[]	0.17	[]	0.83	[]	NA	
Cadmium	1	0.54	[]	0.63	[]	0.37	[]	0.68	[]	1.8		NA	
Calcium	1,000	2,710		49,800		12,100		4,930		38,800		NA	
Chromium	2	8.4		9.6		11		7.1		13.5		NA	
Cobalt	10	9.7	[]	4.1	[]	2	[]	2	[]	9.4	[]	NA	
Copper	5	32.2		24.3		74.6		20.4		42.5		NA	
Iron	20	15,600		15,500		19,300		10,900		19,700		NA	
Lead	0.6	853		209		325		1,430		6,460		1,329	
Magnesium	1,000	1,080	[]	19,200		1,360		1,890		19,600		NA	
Manganese	3	325		307		316		196		520		NA	
Mercury	0.1	ND		ND		0.37		ND		5.3		NA	
Nickel	8	12.5		11.6		6.6	[] K	8.7	[] K	20.8		NA	
Potassium	1,000	607	[] J	668	[] J	253	[] J	248	[] J	1,350	J	NA	
Selenium	1	1.6	J	1.2	UJ	1.3	UJ	1.2	UJ	1.3	UJ	NA	
Silver	2	ND		ND		ND		ND		0.59	[]	NA	
Sodium	1,000	76.1	UJ	73.6	UJ	77.7	[] J	72.2	UJ	78.1	UJ	NA	
Thallium	2	1.4	UJ	1.3	UJ	1.4	UJ	1.3	UJ	1.4	UJ	NA	
Vanadium	10	11.4	[]	8	[]	6.1	[]	5.2	[]	22		NA	
Zinc	4	112		101		53.8		67.9		316		NA	

Notes:
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concentration (904 ppm). Sample SCT-SS-101 had an arsenic concentration of 25.5 ppm. Each of the other 9 sample locations (SCT-SS-102 through SCT-SS-111) had arsenic concentrations ranging from 3.3 to 13.5 ppm. Figure 2, Lead and Arsenic Results Map, shows all sample locations and the lead and arsenic results for each location.

B. Quantities Present:

The cubic yardage of contaminated material is not yet known.

C. Current Physical State and General Conditions of the Substances and/or their Containers:

Crushed battery casings were used as fill in various areas of the Borough and in areas adjacent to the Borough of Hamburg. Battery casings are present at the soil surface along Port Clinton Avenue. A pile of battery casings is located at the south end of the site (sample locations SCT-SS-110 and SCT-SS-111). Battery casing chips are exposed along Port Clinton Avenue at the south end of the site near the guardrail (see photographs). High lead concentrations and battery casing waste is evident at the Hamburg - Port Clinton Avenue site. No methods of containment are in use at this time.

D. Any Chemical, Mechanical, Meteorological or Other Phenomena Which May Rapidly Alter Any of the Above:

Because the site is located in the Schuylkill River flood plain, flooding is a threat. Currently, canal waters flow directly into the Schuylkill River through a corrugated metal pipe at the southern end of the canal.

III. Geographic and Demographic Information

A. Distance from the Site to the Closest Residence and Business Up and Down Gradient:

The site, located in the northern area of the Borough of Hamburg, is a residential area, with three residences located within 400 feet and on grade. A church is located less than 300 feet to the north and on grade with the site.

B. Avenues of Public Access to the Site:

Access to the site is unrestricted. A locked gate allows access for authorized motor vehicles across the canal. A small grass covered parking area is located at the locked gate that crosses the canal. Port Clinton Avenue is a busy throughway, and access to the site from Port Clinton Avenue is unrestricted.

C. Approximate Population Residing within ¼ to ½ mile of the Site:

By counting the number of residential units in a ¼-mile radius and multiplying by the persons per household county average, the estimated population may be determined within ¼-mile radius. The county average persons per household is 2.56, slightly higher than Hamburg's average of 2.16. The total population of the Hamburg Borough is 3,906. The total number of housing units in Hamburg is 1,801. About 85 homes are located within ¼ mile of the site (U.S.Geological Survey [USGS] 1977). Using the Borough average, about 184 people live within ¼ mile of the site. About 425 homes are located within a ½-mile radius of the site (USGS 1977). Using the Borough averages, about 918 people live within ½ mile of the site.

D. Sensitive Land Uses in the Vicinity of the Site:

The site is located between the east bank of the Schuylkill Canal and west of Port Clinton Avenue. This area is used as a public park area, where fishing, walking, and hiking takes place. Portions of the site may be considered sensitive wetland areas. Areas north of the site are considered to be wetland areas, and the Schuylkill River is considered to be a warm-water fishery.

IV. Relationship to Nearby Community

Activities On-Site and Estimated Number of Personnel Involved:

The Schuylkill Canal and Towpath is used daily by local residents. Common activities in this area include walking, jogging, biking, dog walking, and fishing along the river. During sampling activities, people of all ages were observed using the towpath for the above-mentioned activities, many of whom were observed on consecutive days.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III
4530 Bath Pike
Bethlehem, PA 18017

Richard M. Fetzer, OSC
Removal Branch (3HW31)
(215) 353-3909

V. Data on Environmental Pathways

Soil and Sediment:

A total of 18 surface soil samples were collected at the Port Clinton Avenue site. Samples were collected from a depth of 0-12 inches from the surface. Samples were collected using dedicated sampling equipment to prevent any cross contamination. Twelve of 18 samples were sent to Chemtech laboratories for total TAL metals analysis. All samples were analyzed ex-situ with a Niton field portable XRF model 722. Table 1, Soil Analysis Summary, provides the analytical data for all samples collected at the site.

VI. Site Maps/Sketches

Figure 1, Site Location Map shows the location of the site within the Borough of Hamburg, Berks County, PA.

Figure 2, Lead and Arsenic Results Map, shows all soil sample locations and gives the corresponding results for lead and arsenic.

VII. Photographs

Attachment 1 provides photographs from the assessment activities at the site.

VIII. References

U.S. Geological Survey (USGS). 1977. 7.5-Minute Series Topographic Map of Hamburg, Pennsylvania, Quadrangle.

ATTACHMENT 1

PHOTOGRAPH LOG

Photograph 1

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: 11/15/00 **Time**: 4:25 p.m. **Orientation**: Down **Photographer**: R. Helverson

Description: Batteries at surface at Sampling location SCT-SS-110; analytical results indicate 1,430 ppm lead in the sample from this location.

Photograph 2

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: 1/11/2001 **Time**: 11:23 a.m. **Orientation**: Down **Photographer**: R. Helverson

Description: Sampling location SCT-SS-110, with batteries protruding from the surface; analytical results indicate 1,460 ppm lead in the sample at this location.

Photograph 3

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: 1/11/2001 **Time**: 9:55 a.m. **Orientation**: West **Photographer**: R. Helverson

Description: Sampling location SCT-SS-100; analytical results indicate 101,990 ppm lead in the sample at this location.

Photograph 4

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: 1/11/01 **Time**: 11:30 a.m. **Orientation**: Northwest **Photographer**: R. Helverson

Description: Sampling location SCT-SS-111; note the proximity to Port Clinton Avenue; analytical results indicated 19,200 ppm lead in the sample from this location.

Photograph 5

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: 1/11/2001 **Time**: 11:20a.m. **Orientation**: West **Photographer**: R. Helverson

Description: Sampling location SCT-SS-109; note proximity to Port Clinton Avenue.

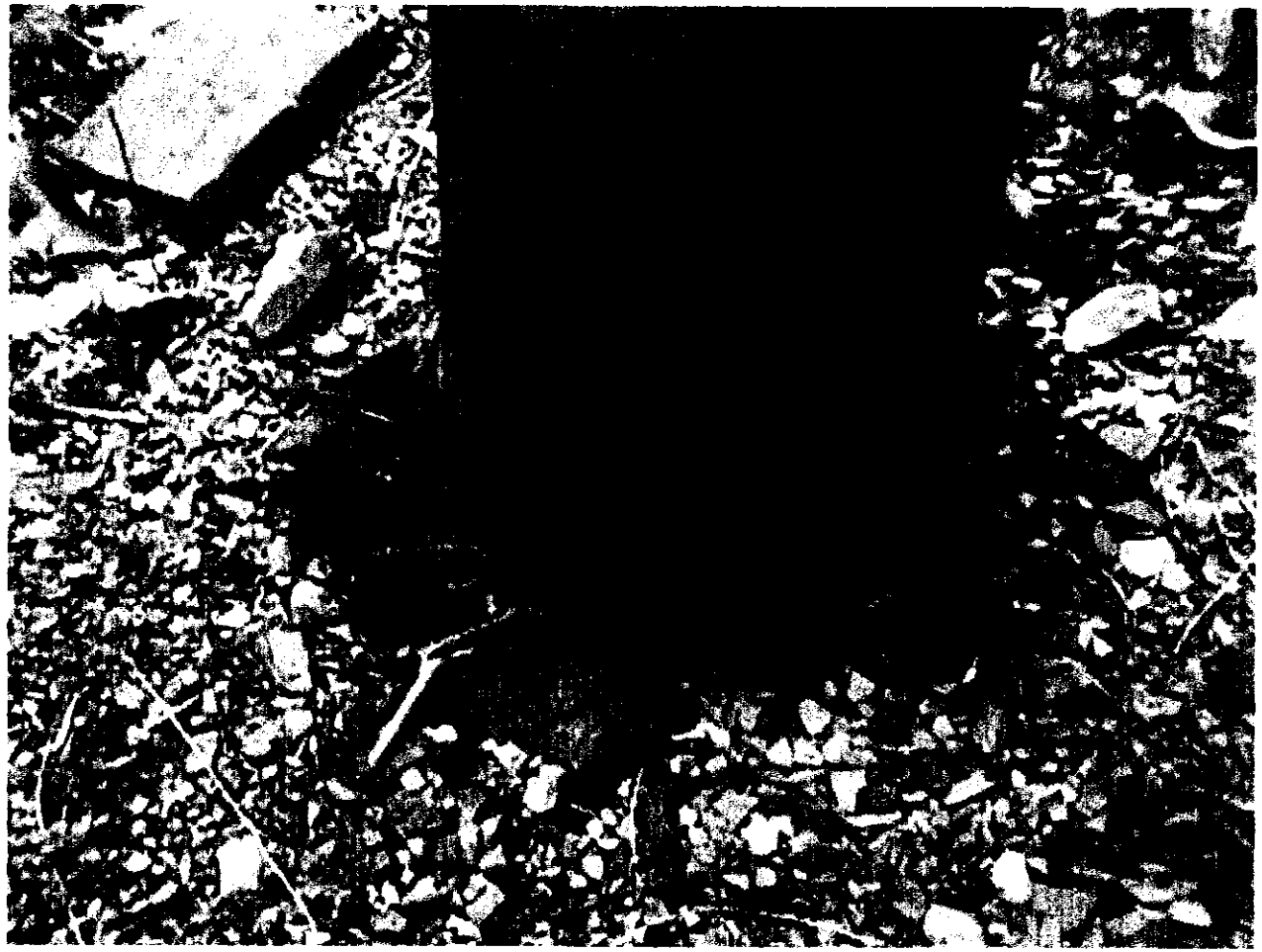
Photograph 6

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: October 2001 **Time**: 1130 **Orientation**: Down **Photographer**: R. Helverson

Description: Batteries at surface at Sampling location SCT-SS-110; analytical results indicate 1,430 ppm lead in the sample from this location.



Photograph 7

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: October 2001 **Time**: 1135 **Orientation**: Down **Photographer**: R. Helverson

Description: Battery chips at base of phone pole along Port Clinton Avenue.

Photograph 8

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: October 2001 **Time**: 1140 **Orientation**: Down **Photographer**: R. Helverson

Description: Battery chips on soil surface along Port Clinton Avenue.

Photograph 9

Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: October 2001 **Time**: 1145 **Orientation**: South **Photographer**: R. Helverson

Description: Port Clinton Avenue from north of Mountain Avenue intersection.

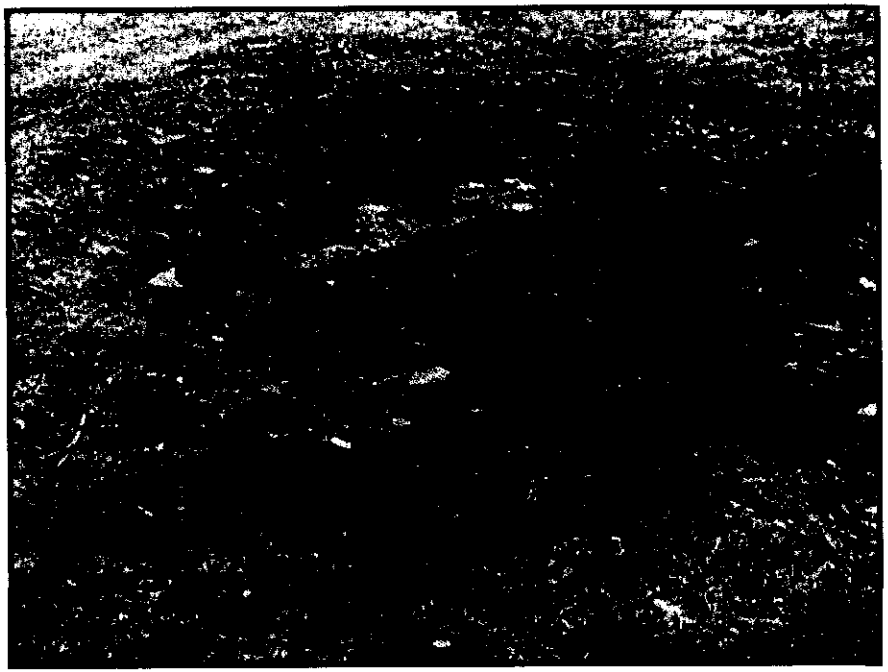
Photograph 10

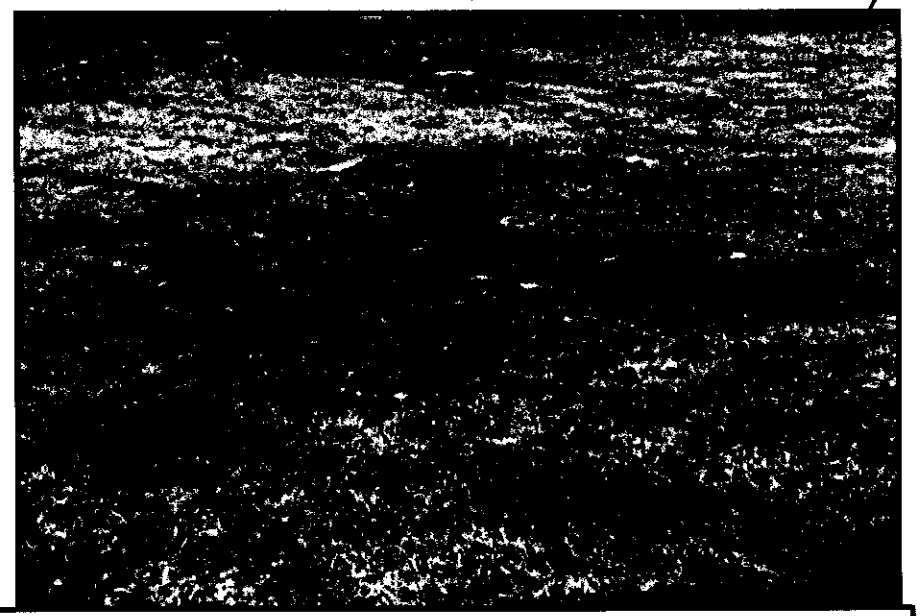
Site Name: Hamburg Lead – Port Clinton Ave. Site

Site Location: Borough of Hamburg, Berks County, Pennsylvania

Date: October 2001 **Time**: 1150 **Orientation**: South **Photographer**: R. Helverson

Description: Area to right of guardrail is location of samples SCT-SS-110 through SCT-SS-112.





Port Clinton Avenue Site after monitoring wells installed by unknown party in Winter 2001/2002.
Battery casing waste now exposed at surface. Photographs taken March 14, 2002.